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THE AGRICULTURAL SITUATION

NOVEMBER 1, 1937

A Brief Summary of Economic Conditions

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BIGGEST CROPS in many years . . . Industrial activity fails to make seasonal rise . . . Consumer demand weakened . . . Farm products prices drop to new lows for 1937. These were the outstanding events in the agricultural situation during October. . . . Under pressure of a combination of forces, cotton sold at lowest prices in more than 4 years, wheat dropped below a dollar a bushel in terminal markets, livestock prices backed off from the record high figures of late September. . . . All major indexes relating to the domestic demand for farm products have been lowered this fall—indexes of nonagricultural income, factory pay rolls, industrial production, and construction activity. . . . The buying power of nonagricultural income per capita of the population weakened slightly in September—probably more in October; but buying power is still around 1924-29 levels. To the extent that it drops below these levels the domestic demand for farm products will be impaired. . . . Foreign demand for American farm products is expected to show little, if any, improvement.

Commodity Reviews

DEMAND: Weakening

RECENT changes in conditions affecting the domestic consumer demand for farm products point to some weakening in demand during the remainder of 1937. Industrial activity has been falling off since early September; usually it increases at this time of the year.

This situation has adversely affected prices of products for industrial manufacture and of other commodities bought and stored for future use. To the extent that it reduces consumer incomes, it will lower the demand for the farm products which go directly to consumers after marketing.

In late September it seemed that the change in industrial activity would not greatly affect consumer incomes and the consumer demand for farm products until after the turn of the year. Since then the sharper reduction in industrial activity has moved forward the time when consumer purchasing power is likely to be affected.

Prospects for foreign demand for American farm products are relatively more encouraging, since foreign countries have small supplies of several commodities which are more plentiful in the United States this year. There was a sharp rise in volume of American farm exports in August; further gains are expected.

Major defect in the foreign demand situation is the adverse effects of the Sino-Japanese conflict upon international trade—especially in reducing China's trade during the period of hostilities.

Nevertheless, the foreign demand for American farm products during the first half of the current marketing year should be about as good as in corresponding months of 1936-37.

FARM INCOME: Slow Rise

Farm income has registered a less-than-seasonal increase this fall, due chiefly to lower prices of wheat, cotton, cottonseed, fruits, and vege-

tables. Income from marketings from August to September increased only \$50,000,000, compared with an increase of \$117,000,000 in the same period last year. Income from farm marketings in October, also, probably made a less-than-seasonal gain.

But despite the slow rise this fall, September income from marketings was \$64,000,000 more than in September 1936 due almost entirely to larger receipts from the sale of crops, since income from livestock and livestock products was only slightly larger. Wheat and tobacco contributed most to the larger September income this year; to a lesser extent, truck crops and fruits. Increases from wheat and tobacco more than offset smaller receipts from such crops as potatoes and cotton which were much lower priced this September.

The cumulative total of cash farm income from marketings and Government payments for the first 9 months of this year was \$6,175,000,000, compared with \$5,432,000,000 in the same period of 1936. This gain of 14 percent has been due almost entirely to larger income from marketings of crops rather than from livestock, and to Government payments for agricultural conservation.

The following table gives the income figures for August and September 1936 and 1937:

	From marketings	From Govern- ment pay- ments	Total
September:			
1937-----	\$816, 000, 000	\$5, 000, 000	\$821, 000, 000
1936-----	752, 000, 000	6, 000, 000	758, 000, 000
August:			
1937-----	766, 000, 000	5, 000, 000	771, 000, 000
1936-----	635, 000, 000	11, 000, 000	646, 000, 000

PRICES: Lower

The index of prices received by farmers in their local markets was 112 on October 15, lowest since June, 1936. On September 15 the index was 118, and on October 15 a year ago it was 121. The October decline was due

chiefly to lower prices of cotton, corn, wheat, meat animals, and fruit.

The reduction in the index put the October 15 buying power of farm products at 88 percent of pre-war compared with 95 percent a year earlier. The recovery high point in buying power was 101 percent of pre-war on January 15 last. There was a decline to 96 in February, but through spring and summer the index held fairly well.

The decline this fall represents a drop from the 93-percent level in mid-August.

WHEAT: Many Factors

Wheat, having dropped below \$1 a bushel in terminal markets, sold in October for lowest prices since June 1936. The average farm price on October 15 was 89 cents. Farm prices of wheat the country over on that date ranged from an average

Index Numbers of Prices Received and Paid by Farmers

[1910-14=100]

Year and month	Prices received	Prices paid	Buying power of farm products ¹
<i>1936</i>			
October-----	121	127	95
November-----	120	127	94
December-----	126	128	98
<i>1937</i>			
January-----	131	130	101
February-----	127	132	96
March-----	128	132	97
April-----	130	134	97
May-----	128	134	96
June-----	124	134	93
July-----	125	133	94
August-----	123	132	93
September-----	118	130	91
October-----	112	² 128	² 88

¹ Ratio of prices received to prices paid.

² Preliminary.

Prices of Farm Products

Estimates of average prices received by producers at local farm markets based on reports to the Bureau of Agricultural Economics. Average of reports covering the United States weighted according to relative importance of district and States.

Product	5-year average, August 1909-July 1914	October average, 1909-13	October 1936	September 1937	October 1937	Parity price, October 1937
Cotton, lb-----cents--	12. 4	12. 1	12. 2	9. 0	8. 1	16. 5
Corn, bu-----do-----	64. 2	64. 8	97. 9	93. 9	58. 9	85. 4
Wheat, bu-----do-----	88. 4	88. 1	106. 8	93. 0	88. 7	117. 6
Hay, ton-----dollars--	11. 87	11. 49	10. 77	8. 91	8. 77	15. 79
Potatoes, bu-----cents--	69. 7	65. 0	97. 9	53. 6	48. 5	91. 0
Oats, bu-----do-----	39. 9	38. 4	43. 1	29. 0	28. 8	53. 1
Soybeans, bu-----do-----	(¹)	(¹)	106. 7	89. 8	85. 8	-----
Peanuts, lb-----do-----	4. 8	4. 6	3. 5	3. 4	3. 2	6. 4
Beef cattle, cwt-----dollars--	5. 21	5. 09	5. 89	7. 54	7. 19	6. 93
Hogs, cwt-----do-----	7. 22	7. 37	9. 17	10. 55	97. 8	9. 6
Chickens, lb-----cents--	11. 4	11. 5	14. 0	17. 4	17. 6	15. 2
Eggs, doz-----do-----	21. 5	23. 8	27. 6	22. 9	25. 2	² 34. 0
Butterfat, lb-----do-----	26. 3	26. 8	33. 5	33. 4	35. 1	² 35. 4
Wool, lb-----do-----	17. 6	16. 9	26. 4	30. 8	29. 2	23. 4
Veal calves, cwt-----dollars--	6. 75	6. 8	7. 54	8. 91	8. 76	8. 98
Lambs, cwt-----do-----	5. 87	5. 35	7. 25	8. 57	8. 42	7. 81
Horses, each-----do-----	136. 6	134. 5	90. 7	93. 1	90. 2	181. 7

¹ Prices not available.

² Adjusted for seasonality.

of 75 cents in Washington to \$1.19 in Georgia.

Factors influencing domestic wheat prices during the next few months will be the crop prospects in Argentina and Australia, Soviet Russia's policy regarding exports, the political situation in Europe, reports of the area sown and progress of next year's crops in the Northern Hemisphere, and domestic business conditions.

United States exports during the current season through October 15 totaled only 17,000,000 bushels, held down by cheaper offerings from other countries and uncertainty regarding the volume of Russian shipments. But exports have increased recently, since the spread of domestic prices under prices in importing countries has widened enough to offset the highest ocean freight rates in recent years.

In the United States, supplies of Hard Red Spring and Durum wheats are about ample to take care of prospective requirements during the current year; but supplies of hard and soft red winter and white wheats are much in excess of domestic requirements. Exports of about 95,000,000 bushels this season would leave a carry-over of about 200,000,000 bushels on July 1 next, a quantity larger than in the last 3 years, but less than the 1930-34 average of 326,000,000 bushels.

COTTON: Lower Priced

Cotton prices in October fell to lowest figures in more than 4 years. Major price-depressing influence was the production of the second largest United States crop on record. Other factors were the slackening rate of mill activity, the downward tendency in prices of leading internationally traded commodities, and military operations in the Orient.

Mill activity and cotton consumption are still high relative to most past seasons, but for several months mills have been producing goods in excess

of new orders, and for several weeks in excess of shipments. Stocks of cotton goods have accumulated in trade channels.

Brightest segment of the world cotton situation has been the high level of cotton consumption in most European countries. In the British market, mill sales of yarn and cloth in early October were somewhat in excess of mill output; French mills have been selling more goods recently; Germany imports of raw cotton have increased.

In Japan, yarn production and exports of piece goods in September were the largest on record, but in China the cotton goods manufacture and trade have been sharply curtailed. Only 15 percent of the spindles in Shanghai are active, and these only half time.

United States cotton exports totaled 837,860 bales in August and September; an increase of 11 percent over the same months in 1936.

TOBACCO: Consumption Up

Tobacco supplies this year are slightly larger than last, but domestic consumption is increasing and prospects are favorable for larger exports. The production this year is a little above the 1928-32 average, but 28 percent more than in 1936. Stocks in 1938 may be increased slightly from this year's relatively low level.

Cigarette and cigar types of tobacco have benefited most from increasing domestic consumption; there has been little change in recent years in the use of chewing, smoking, and snuff tobaccos.

Improvement in the foreign demand for American tobacco will affect flue-cured most. This class comprises about 75 percent of American tobacco exports. Best foreign markets are the European countries—led by the United Kingdom—where improved industrial activity usually means increased tobacco consumption.

FRUITS: Large Crop

Larger-than-average supplies of fresh fruits at generally lower prices are in prospect for this winter.

The orange crop (winter and spring varieties) is indicated at more than 41 million boxes—3 million more than in 1936, and nearly 8 million more than the 1931-35 average. Prices of new crop oranges in late October were about the same as a year ago. Some readjustment in prices is likely when the increased supplies reach the market.

The second largest grapefruit crop on record is indicated by recent Bureau reports. Prices have declined more than usual in the last month.

The largest apple crop since 1926 was indicated by the Bureau's October crop report. The total was 206.7 million bushels compared with 117.5 million last year. A less-than-seasonal rise in prices is likely during the latter part of the marketing season, because of the large crop and prospective reduction in consumer buying power during the first half of 1938.

SUGAR: Record Supply

Indications of the Louisiana crop of sugarcane were revised slightly upward by the October crop report. The cane was maturing rapidly under beneficial effects of sunshiny days and cool nights; factories were preparing for an early start on the new crop.

But conditions in the sugar beet fields were less favorable, and the crop board revised its earlier crop indications downward—to 9,038,000 short tons. Should the yield of sugar per acre of sugar beets equal the 5-year (1932-36) average, a production of about 1,276,000 short tons—slightly less than in 1936—may be realized.

The world supply of sugar during the season ended August 31 was the largest on record; but prices were the highest in 8 years. Another record world supply is in prospect during the current season.

TREE NUTS: Many

Tree nuts are expected to sell for less money this season under pressure of record crops of filberts, almonds, and English walnuts, and a big crop of pecans. The combined production of these four crops will top 113,000 tons, 41 percent above average.

Walnut production has been increasing rapidly for several years, filberts are in early stages of rapid increase, the output of almonds and pecans has fluctuated widely around constant levels for 10 years.

Surveys by the Bureau of Agricultural Economics indicate that unless there is unforeseen abandonment of orchards or pulling of trees, combined nut crops of 100,000 tons will become typical.

TRUCK CROPS: Season's End

The 1937 truck crops shipping season, nearing its end, has been featured by increased volume in nearly all lines except onions. Acreage was increased little, but yields of most crops were relatively high. Prices have been generally lower.

Production increases in late crops for fall harvesting this year compared with last have been indicated for lima beans, snap beans, cauliflower, peppers, and spinach, but decreased production is indicated for late celery, cucumbers, and lettuce.

The indicated acreage of 11 southern truck crops for shipment this fall and winter is 125,350 acres, compared with 133,250 last fall and winter, and a 5-year average of 85,610. This is a net decrease of 6 percent below last year, but a net increase of 46 percent above the 1928-32 average.

Increases over last year are indicated for carrots, eggplant, and peppers; decreased acreage for artichokes, snap beans, fall and early cabbage, cauliflower, celery, cucumbers, spinach, and tomatoes. Plantings of winter vegetables (mostly tomatoes, green peppers, and lima beans) in

Cuba are reported to be smaller this year than last.

Southern and western winter vegetables, if in abundant supply, are expected to sell at fairly moderate prices during the next few months. Prices of northern stored vegetables, such as onions and cabbage, may tend higher during this period, at least until competition begins from the early southern supply.

POTATOES: Prices Up

Potatoes were selling for a little more money in terminal markets in late October, strengthened by delayed shipments as shippers and growers awaited the terms of marketing agreements covering States in North Central and Western areas. The marketing and diversion programs, effective October 19, are expected to remove about 25 million bushels of surplus late potatoes from regular commercial channels.

The indicated total production of potatoes was slightly reduced as of October 1 to 399 million bushels. However, this is about 69 million more than the 1936 crop, and about 27 million more than the 1928-32 average. Most of the increase is in the 30 late-producing States, where production is indicated at 324 million bushels—46 million more than in 1936 and 24 million more than average.

RICE: Big Crop

The largest domestic rice crop in 28 years was indicated by the Bureau's October 11 crop report—52,073,000 bushels compared with 46,833,000 produced in 1936.

Production in the southern rice belt (Louisiana, Texas, and Arkansas) was placed at 41,755,000 bushels—an increase of 4,470,000 bushels over last year; California shows an increase of 770,000 bushels.

Lower prices may increase domestic consumption of rice, and exports may be increased compared with last year;

but not enough to prevent the accumulation of a burdensome carry-over at the close of the season.

SWEETPOTATOES: Rise

Prices of sweetpotatoes are expected to rise seasonally during the next few months, despite an increase of about 11 million bushels in production this year compared with last. The crop is indicated at about 75 million bushels, with production increases distributed among all the major producing areas.

CATTLE: Prices Decline

Cattle prices have declined from the unusually high peaks of late September as marketings of the lower grades of slaughter cattle have increased.

The prospect for the first half of 1938 is that grain-fed cattle will decline more than seasonally; but that lower grades of slaughter cattle will advance seasonally.

Basis is an expected increase in marketings of grain-fed cattle next spring, as contrasted with fewer cows and heifers in the slaughter supply.

Early reports indicate a large increase in cattle feeding this winter, induced by more plentiful and lower priced feed, the current high level of prices of finished cattle, the relatively large returns for cattle feeding operations during the last 6 months, and the relatively small number of hogs available to utilize the increased feed supplies.

Shipments of stocker and feeder cattle have been less than average; but there are being fed many animals purchased a year ago. These will comprise a large part of the cattle to be finished for slaughter during the coming year. In addition, many feeder cattle bought this year will be fattened for slaughter in the current feeding period, rather than being carried through the winter on hay and roughage.

HOGS: Lower

The hog situation is marked by the current seasonal decline in prices, prospects for reduced slaughter during the first half of the 1937-38 marketing year as contrasted with the corresponding period a year earlier, and the certainty of an increase in the pig crop next spring.

Marketing of a large part of the 1937 spring crop of pigs is being delayed as hogs are being fed to heavier weights. Meanwhile there has been a large out-of-storage movement of pork and lard. Storage holdings of pork on October 1 were the second smallest ever recorded for that date; holdings of lard were much below average.

The pig crop this fall is expected to be somewhat smaller than in 1936 but about the same as in the fall of 1935. This is indicated by conditions since the issuance of the Bureau's June Pig Report. (The report indicated a 3 percent reduction in number of sows to farrow this fall compared with farrowings in the fall of 1936.)

The reduction this fall may be as many as 1 million pigs, on top of a reduction of 3 million head in the 1937 spring crop compared with that of 1936. Nearly all of the reduction of 4 million head this year is in the Corn Belt and adjacent States which furnish most of the commercial supply of hogs.

More pigs will be raised in 1938 but this will not be reflected in increased hog slaughter until late 1938 or 1939. During the marketing year just closed (on September 30) hog slaughter totaled 34.1 million head. It will be less during the current year, ending September 30, 1938, but the hogs will be of heavier weight.

LAMBS: Firm

Lamb slaughter increased seasonally in September and October; prices strengthened following the slight September decline. Biggest contributing

factor in the larger slaughter was an increase in marketings of fed lambs.

Early reports indicate a marked increase in lamb feeding this winter in the Corn Belt and Texas but a decrease in other Western States. The net will probably be an increase in feeding this year compared with last.

Total slaughter of sheep and lambs—December through next May—will be about the same as in this period last year but there will be more fed lambs and the seasonal distribution of the total supply will be different.

A large part of the increased number of lambs to be fed in Texas probably will be marketed prior to March 1, whereas shipments of grass-fat yearlings may be much smaller from March through May than in 1937, when shipments were large.

Normally there is a seasonal rise in prices of fed lambs from January through April. In the coming year the gain may be less than in 1937 because of weaker demand for meats and wool in prospect.

DAIRY PRODUCTS: Prices Better

Latest reports indicate continued improvement in the dairy industry. Prices of butter and cheese recently have been at about highest figures for this year; there has been a relatively heavy out-of-storage movement of these products.

Declining feed prices and continued good consumer demand for dairy products are other favorable factors as dairymen prepare for the winter feeding period. Milk production is averaging lower than at this time last year, but gains are expected after January 1.

Production of principal manufactured dairy products is declining seasonally; stocks are relatively low. There has been a marked increase in consumption of fluid milk and cream in eastern markets.

FATS AND OILS: Increased Production

A marked increase in production of domestic vegetable oils is indicated by the Bureau's latest crop reports. The supply of cottonseed oil is expected to be the largest in 6 years and of soybean oil the second largest on record.

Slight increases in production of peanut, corn, and other minor vegetable oils are in prospect. The increase in total edible vegetable oils will more than offset a decrease in the output of lard and other edible animal fats.

POULTRY: Prices Up

Poultry continues to sell at highest prices in several years, rising contrary to the usual fall downtrend; but eggs are lowest for this time of year, held down by large storage stocks.

Principal factor in the poultry situation has been a decline in marketings. Production of fall and winter broilers may be the largest on record, but the small supplies of most meats will be a price-supporting factor.

Ordinarily there is a decrease of about 25 percent in farm laying flocks,

from January 1 to September 1; during 1937 the decrease was slightly more.

Since flocks have been reduced, egg production is expected to be less this fall and winter; but egg receipts at the four principal markets (New York, Chicago, Philadelphia, and Boston) may equal receipts of a year ago because of the inclusion of eggs from the large stocks in cold storage outside of these cities.

WAGE RATES: Advance

Farmers were paying the highest wage rates to farm hands this fall in 7 years. The October index of farm wages was 126 percent of pre-war compared with 110 percent on October 1 last year.

Farm labor was in urgent demand to harvest the second largest cotton crop on record, and above average crops of corn, fruit, and potatoes. But the supply of farm hands was less than in recent years. The result—higher wages.

For the first time in several years farm wages are relatively higher than farm products prices.

Measures of Domestic Demand

[1924-29=100]

	September				Percent change		
	1929	1933	1936	1937	1936-37	1933-37	1929-37
National income.....	108.6	64.3	88.3	97.5	+10	+52	-10
Nonagricultural income:							
Total.....	108.7	65.3	87.9	96.8	+10	+48	-11
Per capita.....	102.8	60.3	78.8	86.0	+9	+43	-16
Factory pay rolls:							
Total.....	109.8	59.1	81.5	97.5	+20	+65	-11
Per employed wage earner.....	103.5	72.7	86.8	97.1	+12	+34	-6
Industrial production:							
Total.....	113.3	78.6	102.0	104.8	+3	+33	-8
Factories processing farm products.....	107.0	99.7	108.5	98.6	-9	-1	-8
Other factory production.....	116.0	67.1	99.9	106.8	+7	+59	-8
Construction activity:							
Contracts awarded, total.....	90.9	24.8	48.8	47.1	-3	+90	-48
Contracts awarded, residential.....	65.4	10.7	42.1	34.0	-19	+218	-43
Employment in production of building materials.....	94.4	44.4	58.8	62.3	+6	+40	-34
Cost of living:							
Food.....	104.0	69.3	81.2	82.6	+2	+19	-21
"All other items".....	97.9	83.1	82.3	85.1	+3	+2	-13
Purchasing power of nonagricultural income per capita:							
For food.....	98.8	87.0	97.0	104.1	+7	+20	+5
For "All other items".....	105.0	72.6	95.7	101.1	+6	+39	-4

NOTE.—All indices adjusted for seasonal variation except "Cost of living."

Billions of Cigarettes

THE indicated production of flue-cured tobacco this year is over 830 million pounds, 22 percent larger than last year, and one of the largest crops ever produced in this country. Nineteen thirty was the only year in which a larger production of flue-cured tobacco was recorded.

Despite the large production this year, growers have been receiving good prices for their tobacco. Through September, 405 million pounds were sold at an average price to producers of 21.7 cents per pound. The marketing of this year's crop in Georgia and Florida, and in South Carolina has been concluded, but farmers will continue to sell flue-cured tobacco on Virginia and North Carolina markets through the first few months of 1938. If prices now being paid continue during the remainder of the season the gross income to growers from the 1937 flue-cured crop will probably be around 180 million dollars—more than in any previous year except 1919 when prices were unusually high.

Flue-cured tobacco in this country is used chiefly in cigarettes, and the fact that the domestic consumption of cigarettes has been increasing continuously is the chief reason for prices holding up despite larger production. Stronger foreign demand this year is also a factor supporting prices to growers, with cigarette consumption tending to increase in European countries as well as in the United States. But without the marked upward trend in the domestic consumption of cigarettes, a flue-cured crop as large as is indicated for this year could not be sold except at much lower prices.

The total use of leaf tobacco in the manufacture of tobacco products has doubled in the last 35 years. During this same period, population in the United States increased by only two-thirds. The upward trend in total utilization has been fairly con-

sistent, the only important declines having occurred in the years 1919–21 following the marked expansion during the war, and in the depression years of 1930–32. Most of the ground lost during the depression had already been regained in 1935; and it is probable that total domestic utilization in 1936 exceeded the previous peak attained in 1929.

DURING the first 10 or 15 years of this century, increases in the total leaf used were due largely to increasing consumption of smoking tobacco, cigars, and snuff. But in the last 2 decades, it has been the tremendous expansion in cigarette consumption which has been almost entirely responsible for the upward trend in the total domestic utilization of tobacco, with a moderate decline taking place in requirements for other tobacco products as a whole.

Prior to the depression, there was a marked upward trend in the domestic consumption of cigarettes as indicated by tax-paid withdrawals. In the period 1921–30, consumption was larger in every year than in the previous year, with an average annual increase of 10.5 percent. Total cigar consumption was fairly stable during this period, but a definite shift was in progress toward lower-priced cigars, particularly those retailing for 5 cents or less. Consumption of chewing tobacco was decreasing, while that of smoking tobacco was relatively stable, and a slight upward trend was in evidence for snuff.

The depression had an adverse influence on the consumption of all tobacco products except smoking tobacco. Cigarette consumption fell off in 1931 and in 1932, and snuff consumption declined slightly in the years 1931–33. But the effect of the depression was most serious for cigars and chewing tobacco. Cigar consumption at its low point in 1933 was one-third less

than in 1929, and total consumption of chewing tobacco fell off by more than one-third. Moreover, the depression accentuated the shift to lower-priced cigars, with almost all of the decline in total cigar consumption taking place in cigars retailing for more than 5 cents. In the case of smoking tobacco, consumption actually increased slightly above the 1929 level, probably because of a tendency for smokers to shift to less expensive forms of tobacco in a period of reduced incomes.

With recovery in the last few years, however, total consumption of tobacco in the United States has again been increasing. Cigarette consumption has apparently resumed its upward trend, increasing in every year since 1932 at an average rate of about 10 percent a year. The previous peak for cigarettes was already exceeded by 1934; and in 1936 the internal revenue tax was paid

on over 153 billion cigarettes, or almost 1,200 for every person in the United States.

SINCE 1933, cigar consumption has also been increasing at an average rate of about 6 percent a year, but it has not yet returned to predepression levels. Snuff consumption has increased slightly, but relatively little change has taken place in consumption of chewing or smoking tobacco in the last few years.

Some further increase in the total domestic utilization of leaf tobacco is to be expected. But this increase will probably be largely in cigar types of tobacco and cigarette types—flue-cured, burley, and Maryland. Little increase is expected for fire-cured and dark air-cured types, which find their chief domestic outlets in the manufacture of snuff and chewing tobacco.

E. W. GROVE

Far Eastern Situation Affects American Agriculture

CHINA and Japan are important markets for American cotton and tobacco; markets, also, for small quantities of American wheat, wheat flour, and fresh fruits. On the other hand, the United States buys many agricultural products from the Orient—tung oil, silk, tea, walnuts, carpet wool, egg products, hides and skins, and several vegetable oils and oil seeds.

The cotton situation is of greatest interest to American agriculture. Japan—our largest buyer of American cotton during the past 6 years—has already reduced purchases of raw cotton for the 3 months September, October, and November. During these months the Japanese Government is permitting importation of cotton to the value of only 50,000,000 yen (\$14,430,000) as compared with 170,000,000 yen (\$49,132,000) actually

imported during the corresponding months last year.

The Japanese textile industry, which normally exports around 60 percent of its total production of piece goods, is having difficulty in keeping up sales of these goods. It is reported that during the last 3 months sales have amounted to only 30 percent of production.

Japan had considerably more than normal stocks of cotton on hand at the beginning of the current season on August 1 and in addition may be able to get more than the usual quantity of raw cotton from North China. In view of these supply factors and the prospective reduced utilization it seems reasonable to expect that Japan will take substantially less than the usual quantity—about 1,500,000 bales—of American cotton during the current season.

IN CHINA more than 60 percent of the cotton spinning mills have been closed and substantial stocks of raw cotton have been destroyed. During the last 2 years China has consumed only small quantities of American and Indian cotton but an increasing volume of native cotton since cotton production in China has markedly increased. Chinese cotton production, according to the latest information, may equal approximately 4,000,000 bales of 500 pounds this year as compared with the record harvest of 3,700,000 bales in 1936.

Unless the closed cotton mills in China reopen soon a large supply of Chinese raw cotton will be available at very low prices. The nearest market for this surplus cotton will be in Japan. While most of this cotton would be used to replace Indian cotton, some of the increased production, especially in North China, is from improved seed which can be used in place of American.

THE situation in the Orient is affecting our American tobacco markets. China for many years has been the second largest export market for American flue-cured leaf. At present more than 50 percent of the cigarette factories in China are closed and some of the large plants and considerable stocks of flue-cured tobacco have been destroyed. There has been some immediate demand for buying American leaf to replace these stocks but it is uncertain when shipments can be made.

Production of flue-cured tobacco in China this year is expected to amount to a record crop of about 220,000,000 pounds as compared with 180,000,000 harvested last year. If hostilities continue, this large quantity of flue-cured tobacco will be sold at low prices. Should transportation facilities be available, it is likely that larger quantities than usual will be exported to Manchuria and it is

possible some may be shipped to the European markets. This would compete indirectly with American leaf. The flue-cured tobacco producing districts in China are outside of the present fighting areas. Japan is relatively a minor market for American leaf and it is uncertain whether imports of tobacco will be permitted during the present situation.

HOSTILITIES in the Orient will not have an important effect upon our wheat and flour situation. If fighting continues, some of the port cities in China may import a larger volume of flour and other cities may import some foreign wheat for local use. All the surplus Chinese wheat in the interior will be used by interior mills for supplying flour for the Chinese army.

Japan undoubtedly will export an increased quantity of flour to North China where she will no longer need to pay Chinese import duties. Japan usually imports small quantities of wheat and will probably buy some from the United States, providing our price is in line with other foreign wheats. Manchuria, however, has a larger crop this season and may supply Japanese mills with an important part of her requirements from abroad.

OUR Pacific coast fruit exports to the Orient will be reduced. Normally, small quantities of apples, oranges, and raisins are exported to the Far East, principally to China. According to a recent proclamation, the Japanese Government has prohibited the importation of fruits and vegetables and many other items during the present hostilities.

How will our imports of agricultural products from China be affected? Up to the present time tung oil furnishes the outstanding example of repercussion on our import trade. China supplies more than 90 percent of the tung oil entering international trade. The Chinese oil is in con-

siderable demand in the United States for use as a drying oil in the manufacture of paints and varnishes. The price in New York City advanced from 11 cents to about 25 during the last 2 months. Production areas in China have not been affected but the usual transportation routes, principally the Yangtze River, have been blocked.

During the last 2 years the United States has imported substantial quantities of peanut oil, cottonseed oil, sesame seed, and rapeseed oil from China. Imports of these vegetable oils will probably decline to an insignificant quantity as hostilities continue. But even had there been no fighting, imports of these commodities probably would have been reduced this season because of the larger

domestic supplies and lower prices in this country.

CHINA has been an important source of our imported goat and lamb skins, dried and frozen eggs, carpet wool, and walnut kernels. These commodities are obtained largely from North China and the Yangtze Valley; imports into this country will be materially reduced as fighting continues in the Orient.

Silk and tea make up the bulk of the agricultural products imported directly into this country from Japan. The fighting in China will not directly affect Japanese shipments to the United States but the cutting off of some supplies of these products from China may tend to raise world prices.

FRED J. ROSSITER.

The New Land-Use Program

Title III of the Bankhead-Jones Farm Tenant Act directs the Secretary of Agriculture specifically "to develop a program of land conservation and land utilization, including the retirement of lands which are submarginal or not primarily suitable for cultivation."

This legislation marks an historic step in the conservation movement. Legislation of this kind, authorizing a program of land utilization, has long been advocated by State and Federal economic research agencies. Since 1934 considerable progress has been made through the use of emergency funds. Now, through the action of Congress, a long-range program of land utilization has been given a place on the statute books.

IF a land-use program under title III is to be effective, there must be cooperation between Federal and State Governments. The acquisition of submarginal farm land, which is a part of the land-utilization program, cannot be fully effective in correcting bad land use except through common action by Federal, State, and local

agencies and farmers themselves.

Because of financial and other considerations the Federal Government cannot acquire all of the land in all of the problem areas in order to insure its efficient use and conservation. But the Federal purchase program, together with State and local land-use measures, can be of great assistance, for example, in buying the lands of "nonconforming users" in zoned areas which are special sore spots in a State, because of scattered settlement and consequent high cost of local government services.

BESIDES meeting the requirements of title III of the act, the purchase of submarginal farm lands will be planned to help other programs for soil conservation and flood control, Federal, State, and local. In making the purchases areas will be considered where the land-use program may be extended to related lands not purchased and where the unpurchased lands within a proposed project area are of a sort that probably would not be settled even though they remained in private ownership. Therefore, spe-

cial consideration will be given to the purchase of land in areas zoned against agricultural settlement, in areas where soil conservation districts have been organized or have petitioned for organization, in areas where the State is applying a vigorous policy of retaining tax-delinquent lands in public hands, with suitable conservation protection and the like.

MANY things which the Federal Government is without constitutional power to do need to be done by the State Governments. We must look to the State legislatures, for instance, for the adoption of rural zoning laws, soil-conservation-district laws, adjustments in taxation on farm real estate, modification in tax-delinquency laws, laws governing the organization of grazing associations, and laws regulating the reciprocal rights and obligations of farm landlord and farm tenant.

In many cases it will be necessary, also, to secure the cooperation of the counties or other local units of government to supplement the State statutes, as in the adoption of county rural zoning ordinances under State enabling legislation.

TO administer title III of the act Congress has authorized appropriations of \$50,000,000 over a 3-year period, of which \$10,000,000 has been made available this fiscal year. A large part of the money to be spent for land purchase this year will be in the Great Plains area, in projects laid out on the basis of land-use planning studies during the last 2 years. The remaining 20 percent will be spent for "blocking in" already existing projects in other parts of the country, which were started by the Agricultural Adjustment Administration in 1934 and the Resettlement Administration in more recent years.

During the 3-year period the important consideration in selecting land for purchase will be to place under Government ownership lands whose present use is not in accord with the public welfare and the welfare of the

persons now occupying it. The land retired from cultivation will be used for forests, recreational areas, wildlife refuges, controlled range, and other purposes for which it is best suited and which will promote the general welfare.

LAND will not be purchased haphazardly. Given areas will be studied in cooperation with the appropriate State and local agencies. Each purchase project will be selected so as to permit the efficient use and administration of the land purchased, to contribute to an improvement in the economy of the entire area, and to prevent the waste or misuse of the land.

The land acquired will generally be land employed in agriculture and which is occupied at the time of purchase. But occasionally some intervening or adjoining unoccupied land, or land not then being used for agriculture, may be bought, to facilitate efficient operation and conservation of an area as a whole.

In the Great Plains, for example, considerable areas of land which are definitely submarginal are unoccupied and in various stages of abandonment or disuse. Many of these lands are absentee-owned. Some are farmed 1 year by "suitcase farmers" and allowed to lie idle the next. Some are completely abandoned fields or pastures. Frequently soil drifting from these lands ruins adjacent occupied lands. Public acquisition appears to offer the only means of restoring these lands to efficient use—in some instances, of preventing them from being a menace to surrounding lands.

THE general use to which land is to be put and the selection of the agency to administer it will be determined, so far as practicable, before the land is bought. All possible help also will be given families residing on land purchased to find new opportunities elsewhere. They will be helped to relocate good lands. As far as the funds permit, the necessary debt adjustment, rehabilitation, and related assistance will be provided.

HENRY A. WALLACE.

The Consumer's Food Dollar

AGAIN the cost of food and the spreads between farm and retail prices of meats and other commodities are in the headlines. A preliminary estimate by the Bureau of Agricultural Economics is that as an average for 1937 farmers will receive 46 cents of the consumer's food dollar spent for 58 foods combined. The remainder, 54 cents, is the amount going for processing, transportation, marketing, and distribution after the original products leave the farms.

The farm value of equivalent farm products going into the 58 foods has increased rapidly in the last five years. The estimated value in 1937 is 7 percent more than in 1936, and 77 percent above the 1933 level. Corresponding to the latter increase, there have been increases of 35 percent in retail value, and of only 13 percent in the farm-to-retail price margin.

The following table gives price and margin data relating to the 58 important foods for selected years and a preliminary estimate of the figures for the year 1937 based upon the 9 months' farm and retail prices available at this time. The 58 foods represent about 74 percent of consumer expenditures for all foods. In the table, farm value is based upon prices received by farmers as published by the Bureau of Agricultural Economics. The retail value is based upon United States Bureau of Labor Statistics' retail prices in 51 cities.

58 Foods¹ Produced by American Farmers

	Farm value	Retail value	Margin	Farmer's share, food dollar
				Percent
1929-----	\$195	\$415	\$220	47
1933 ² -----	92	264	172	35
1935 ³ -----	138	331	193	42
1936-----	152	342	190	44
1937 ⁴ -----	163	357	194	46

¹ Amounts of 58 foods consumed annually by a workingman's family.

² The retail value and margin for 1933 include about \$2 in processing taxes.

³ The retail value and margin for 1935 include about \$11 in processing taxes.

⁴ Preliminary estimate based upon data for 9 months, January to September.

THESE data indicate that the margin for 58 foods in 1937 probably will be at least as high as in 1935 when to processors' ordinary costs there was added about \$11 in processing taxes on certain food products. The margin dropped from 1935 to 1936 when the processing taxes were removed, but this drop was only \$3. The decline in the margin did not equal the amount of the tax partly because in the meantime increases had occurred in various cost items. One of the most important of these items is hourly wage rates.

Over a long period of years the actual level of the margin of 58 foods has been closely associated with hourly wage rates of all nonagricultural wage earners as measured by the index of the United States Bureau of Labor Statistics. This index is not available for 1936 or early 1937, but it may be estimated from the index of hourly earnings in 25 manufacturing industries.

The estimate indicates that wage rates increased somewhat from 1935 to 1936, but not enough to offset the removal of processing taxes. For the 8 months of 1937, January to August, data for which are now available, the level of hourly earnings in 25 manufacturing industries was more than 11 percent higher than in the corresponding period of 1936. The increase would probably be accentuated by including data for the months September to December.

This change in wage rates in 25 manufacturing industries points to an increase from 1936 to 1937 of about 7 percent in the level of hourly wage rates paid all nonagricultural wage earners. According to present indications the increase in the margin of 58 foods from 1936 to 1937 will amount to about 2 percent, which is less than the increase in wage costs.

The estimated retail value of 58 foods in 1937 is about 4 percent above the retail value in 1936. Nonagricultural

tural income, which strongly influences the level of demand for agricultural products, increased about 15 percent from the first 6 months of 1936 to the first 6 months of 1937.

THE level of retail prices for meat products, including beef, pork, and lamb, increased more than 15 percent from September 1936 to September 1937. It was pointed out in an article in the September 1937 issue¹ of *The Agricultural Situation* that the high level of meat prices is a result of the shortage in supply caused by the

¹ *Meat Prices and Incomes of Consumers*, by Preston Richards.

droughts of 1934 and 1936; that it is not out of line with the level of consumer income when the shortage in supply is considered.

Sharp increases in retail food prices are usually due to changes in supplies or in demand conditions. An increase in middlemen's charges may not greatly affect retail prices for some time. It is the farmer who usually bears the immediate brunt of increased margins. It is only after high margins have persisted for some time that the consumer is affected by decreased supplies and increased prices of farm products.

R. O. BEEN.

Farm Security

*VII. The Farm Laborer*¹

IN THIS series have been discussed several factors which affect farm security. They included stability of farm prices and income, physical security of the land, security against crop losses, security of land tenure, and stability of land values. A seventh factor is farm labor.

An adequate supply of competent farm labor under conditions mutually satisfactory to employers and employees is a primary essential of farm security. This situation does not everywhere exist. Instead, farmers frequently complain of the inability to obtain satisfactory help; farm laborers, of low pay and bad working and living conditions.

This fall there was a shortage of farm labor in many important agricultural regions. Wage rates advanced to highest figures in 7 years; nevertheless, there were many farm labor disputes, threatened strikes, some actual strikes. During the years 1933-36 there were more than 30 farm labor strikes.

Students of this situation believe that questions of wages and perquisites are only surface considerations in

continually recurring farm labor difficulties; that the real causes are to be found in the far-reaching changes in pattern and techniques of agriculture during the last 25 years.

Farm mechanization has lessened greatly the demand for farm labor in the planting and harvesting of crops. A different type of laboring skill is required as contrasted with the days when much work was done by hand. And yet this problem of the replacement of men by machines on the farm has never been adequately studied in its economic and social effects.

FARM mechanization is increasing. Practically all the processes of plowing, planting, fertilizing, and cultivating have been mechanized, and the harvesting of many crops as well. As the combine-harvester has reduced farm labor requirements in the grain fields, the mechanical picker may one day do the same in the cotton fields.

Lacking basic studies, the economic and social consequences of farm mechanization are not clear. Mechanization is said to have reduced the cost of farm production, but little is known definitively on this point. On the social side, it is alleged that

¹ This is the seventh in a series on farm security.

the instability of farm labor, due to changed conditions, has been an important factor contributing to present-day unemployment and rehabilitation problems.

Some students question the economy of farm mechanization on the ground that although the annual farm pay roll has been reduced, several times the amount of the reduction is spent annually for farm machinery and its upkeep. Surveys by State research workers have revealed many instances of excessive farm production costs due to over-mechanization.

Figures are cited of low pay for farm hands, making impossible a standard of living in the American meaning of that term; surveys, which reveal laborers poorly housed. Examples are shown of the exploitation of farm labor by entrepreneurs interested only in making quick profits when farm products prices are relatively high.

TWENTY-FIVE years ago, the hired farm hand was getting (as a national average) about \$1.10 a day, with board; \$1.43, without. This fall, he was getting \$1.39, with board; \$1.83, without. Workers by the month, in both periods, got proportionately less per day. The increase over a quarter century has been much less than that received by nonfarm workers in industries requiring comparable skill.

The peak of farm labor employment is in August when about 2,500,000 laborers are engaged, as contrasted with about 1,500,000 during the winter months. Possibly the differ-

ence, 1,000,000, is the army of migratory workers who follow the crops seasonally through the various climatic zones of production.

Many permanent employees have relatively good conditions of pay and living; during the depression, many were kept on even though employers were unable to earn wages. It is the army of itinerants, largely, which presents problems that must be solved in the search for farm security.

Farm laborers—both permanent and casual hands—who aspire to climb from the lowest rung of the agricultural ladder need encouragement and help. But as a basis for extending aid, the problems of all require careful study and analysis in national economic and social interest.

These problems include questions of wage and living conditions, and the contractual relations between employers and employees. They include questions of old age security since the farm laborer has been specifically excluded from the provisions of the Social Security Act. There has been a disposition, also, in many areas to exclude him from Compensation Acts.

The right answers to these and many other questions concerning farm labor will help resolve much of the difficulty now experienced by farmers through inability to secure a dependable supply of efficient farm labor. They will help resolve an important phase of present day social unrest. But they cannot be determined without careful study and analysis of the whole farm labor situation, its scope and context, its economic and social significance.

A. G. BLACK.

In Sweden the hours of work of hired farm laborers are regulated by law. The net working day for ordinary agricultural workers must not exceed 10 hours on farms hiring 3 or more laborers. The net working week must not exceed 41 hours from December to February, 46 hours during March and in October-November, and 54 from April to the end of September.

Costs of Wheat Crop Insurance

TENTATIVE costs and amounts of insurance under the plan recommended by the President's Committee on Crop Insurance, for wheat, have been worked out by the Bureau of Agricultural Economics. These are shown in the accompanying maps.

The President's committee recommended that the amount of insurance should be a certain percentage of the yield per seeded acre on the insured farm. Percentages frequently considered have been 75 and 50 percent.

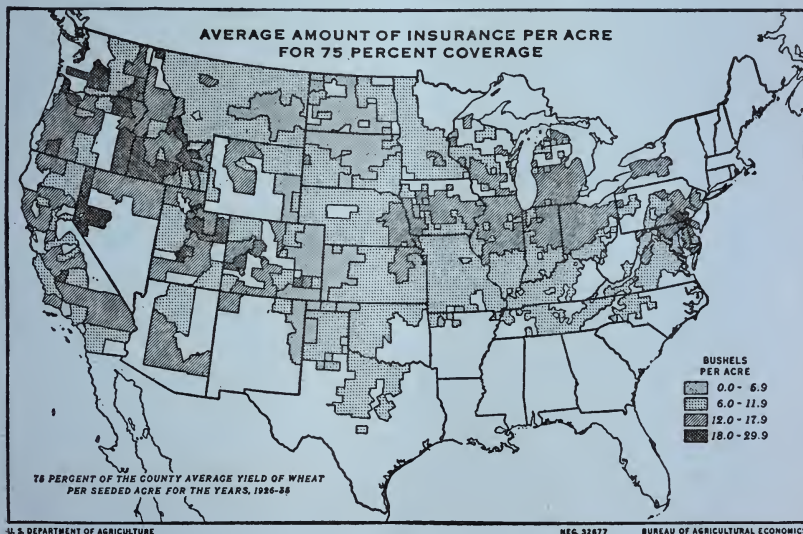
While each farm in a county would have an insurance coverage per acre based on its own production record as recorded or appraised, an approximation of the average coverage for farmers in a county can be obtained by applying the insured percentage (75 percent or 50 percent) to the average yield of wheat per seeded acre for the county.

The first map shows the average amount of insurance per acre by counties based on such a computation. It represents 75 percent of the average county yield for the 10-year period 1926-35. Winter wheat areas where the average insurance coverage would be less than 6 bushels are in western

Kansas, eastern Colorado, and New Mexico. Spring wheat areas where the average coverage would be below 6 bushels are in the Dakotas and in eastern Montana. In much of the country the average coverage would be between 6 and 12 bushels.

In a large number of the counties located in the Corn Belt where soft wheat is raised and where wheat is not the principal crop, the average coverage would be between 12 and 18 bushels. In the Western States also the average coverage in many areas would be in excess of 12 bushels—in some counties nearly 30 bushels. In many cases, these high coverages are due to high yields resulting from irrigation; of course, they would not apply to dry-land farming in these counties.

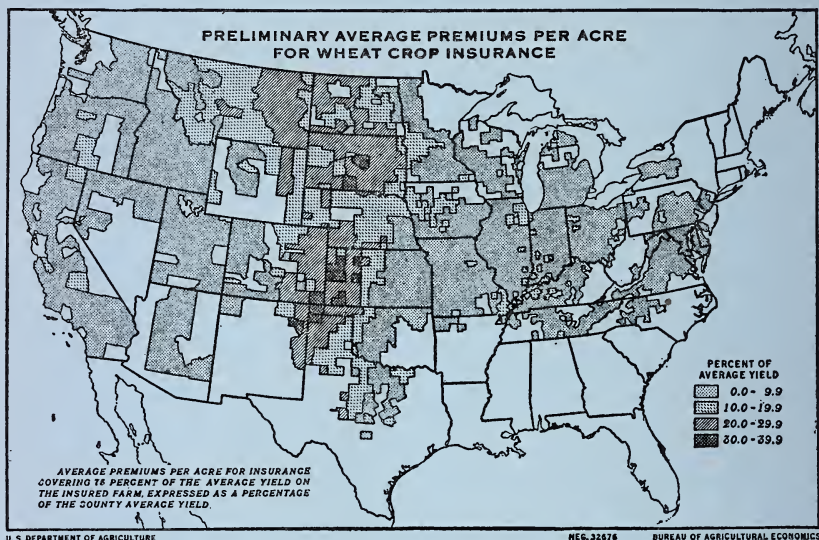
UNDER the committee's plan for crop insurance the premiums for each farm would be based on the crop-loss experience of the farm and on the crop-loss experience of the county—each being given equal weight. (The procedure for determining the premiums is described in the Report of the President's Committee on Crop Insurance, and in The Agricultural



Situation for December 1936.) Average county premiums have been calculated for about 1,600 wheat-producing counties from sample farms selected in such counties. These are shown in the second map, expressed as a percentage of the county average yield of wheat per acre. In actual operation the premiums would be expressed in bushels per acre; they are shown in the map as a percentage of yield, simply to facilitate comparisons. Data are based on the 10-year period 1926-35.

cover loss from winter-kill and forced abandonment in these areas.

Rates in excess of 20 percent of the average yield are shown for the dry-farming areas of the Great Plains, but these areas are interspersed with and bounded by areas with premiums ranging from 10 to 20 percent of the average yield. In most of the country, outside the Great Plains area, the premiums would be less than 10 percent of the average yield per seeded acre.



Premiums in excess of 30 percent of the average yield would be necessary in parts of western Kansas, the Panhandles of Texas and Oklahoma, south-east Colorado, and in South Dakota. A large portion of these high rates is to

The premiums shown on the map are net or loss-cost premiums based only on the cost of paying for crop losses and include nothing for expense of operation.

WM. H. ROWE.

Cotton Goes to Mill

THIS year's cotton crop—second largest in the Nation's history—is moving rapidly into marketing channels. It is expected that domestic mills during the current marketing year, which ends on July 31, 1938, will consume less than the record consumption of nearly 8,000,000 bales last year—less than one-third of the 23,600,000-bale supply of American

cotton in prospect for the 1937 season. Part of the remainder will be consumed abroad; part carried over into next year.

American cotton growers sold about 8,000,000 bales of cotton a year to foreign mills, or more than half the average-size crop during the 10 years ended with 1933. But since then, exports have dwindled to about

5,500,000 bales as foreign mills have used increasing quantities of cotton produced in countries other than the United States.

As American cotton is picked, it is hauled to local gins where the lint is separated from the seed and the cotton fibers pressed into bales weighing about 500 pounds each. Marketing practices vary, but farmers usually sell their cotton at the gin or within a short time after it is ginned. The cotton then ordinarily moves by rail or truck to the various markets, ports, or direct to domestic mills.

Since cotton varies widely in quality shippers or merchants who handle it on the way from gin to mill assemble bales of various grades and staple lengths into even-running lots required by the mills. Many of the 1,200 or more cotton mills in the United States are in cotton-growing States; many use locally grown cotton. At the mills, whether in North Carolina, South Carolina, Massachusetts, Texas, or California, the cotton is rapidly processed—usually spun into yarn, since mills ordinarily carry comparatively small stocks of raw cotton (current mill stocks amount to less than 2 months' consumption).

FROM August 1, 1936 to July 31, 1937, or during the 1936-37 cotton season, mills in the United States consumed 7,950,000 bales of cotton or one-fourth more than in the previous season and one-tenth more than in the previous peak season. Consumption was about 30 pounds per capita of the population, but the quantity of goods bought by ultimate consumers was apparently less than the record mill output. Available information indicates that stocks of cotton textiles have increased considerably in channels of distribution—in mills, in finishing plants, in wholesale establishments, and on shelves of retail stores. Thus, spindles and looms are running fewer hours per week at the end of the first quarter of the 1937-38 season than the average for the previous season.

Cotton prices in mid-October aver-

aged about 8 cents per pound, against about 12 cents on that date a year ago. A decline of 4 cents per pound in the price of cotton means a reduction of roughly 8 cents in raw material costs for a pair of overalls, 3 cents for a work shirt, 8 cents for a bed sheet, 20 cents for an automobile tire, 2 cents for a cement bag, and 1 cent for a square yard of percale.

Lower prices for cotton, as they are reflected in prices of finished cotton products, of course, tend to increase purchases to some extent but cotton consumption also depends to a considerable extent upon pay rolls and incomes of cotton consumers and upon the rate at which cotton materials are used for industrial purposes. Wide changes in general business conditions generally have a marked effect upon cotton consumption.

THE reduction in sales of cotton to foreign buyers emphasize the need of maintaining and increasing the uses for cotton in the United States. Increased use of rayon has doubtless tended to reduce the consumption of cotton for clothing—women's dresses, underwear, and men's hose—and the use of synthetic fibers is increasing steadily. In 1936 the consumption of rayon yarn and staple fiber amounted to 676,000, equivalent to 478-pound bales, against 542,000 in 1935 and only 127,000 bales 10 years ago. Rayon also competes with wool and silk and possibly other fibers, but synthetic fibers have probably displaced more cotton than they have all other fibers combined. Style changes, such as lighter-weight underwear for men and women and shorter dresses for women also tend to reduce the quantity of cotton textiles consumed.

But the development of new uses for cotton has tended to increase cotton consumption. The automobile came at a time when many adverse influences were affecting cotton and has helped to offset the unfavorable effect of certain style changes and synthetic fiber competition on cotton consumption. Something like three-quarters of a

million bales were probably used in automobile tires and bodies in 1936.

The Department of Agriculture and its various cooperators have assisted in the development of numerous new uses, among which are consumer-bags for fruits and vegetables, cotton bagging

for cotton, and cotton fabric for bituminous-surfaced roads. One difficulty in developing new uses has been that few individual uses for cotton require a large quantity; progress in developing new uses is necessarily slow.

ROBERT J. CHEATHAM.

The Fat of the Land

TWENTY-FIVE years ago the United States consumption of fats and oils was 5 billion pounds. Consumption increased to nearly 9 billion pounds in 1929, fell off to 8 billion in 1932, but rose above 9 billion in 1936. There has been a further increase during the first 9 months of this year. Consumption per capita of the population may be only a pound or so short of the peak of 74 pounds in 1929.

Though often referred to collectively as a unit, the term "fats and oils" represents, in trade and consumption, more than 2 dozen well-known items. But of these items, butter, lard, and cottonseed oil represent 55 to 65 percent of total domestic consumption. The remainder includes linseed, tung, hemp and perilla oils, corn, peanut, and soybean oils, coconut, palm and palm-kernel oils, marine animal oils, oleo oil, oleostearine and other animal fats, olive, rape, sunflower, and sesame oils, and several others.

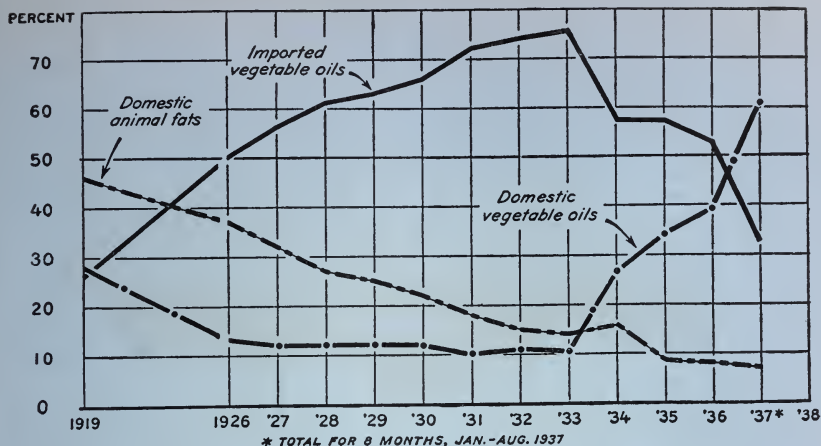
There are three major outlets in the United States for consumption of fats and oils. Food represents roughly 70 percent of total utilization: The products include butter, lard, salad and cooking oils, vegetable shortening, oleomargarine and confectionery and bakery products. Soap accounts for about 18 percent, including all types of hard, soft, and liquid soaps for commercial laundries, household and industrial purposes. Drying uses utilizing about 8 percent, include paints, varnishes, linoleum, oilcloth, and printing inks. There are several hundred less important industrial outlets, using 3 to 4 percent of total consumption.

PROBABLY more competition exists between the various fats and oils than is generally recognized. All fats and oils have food value and practically all are used for food in some countries. (Exceptions are tung, castor, and croton oils and one or two others because of their aperient properties.) Whale oil from the Antarctic, babassu oil from the interior of Brazil, rape oil from India, sunflower oil from Russia, palm oil from Africa, coconut oil from the Philippines, butter from Wisconsin, lard from Iowa, soybean oil from Illinois, cottonseed oil from the South—all compete directly or indirectly.

While it is true that nondrying oils are not generally used in paints and the major drying oils are but little used for food in the United States, some oils are used in both the food and drying industries. For example, 64 percent of factory consumption of soybean oil in 1934 went into drying uses, but in 1936 more than 80 percent of it went into food. Marine animal oils, too, can be processed for use in the manufacture of oleomargarine, soap, or paint. Teaseed oil and olive oil are so alike that only recently has a test been devised with which the adulteration of olive oil with teaseed oil can be certainly detected. The technical characteristics of the several oils make each desirable for specified uses, but in practical usage the consumer limits his choice to the most suitable oils that are available in sufficient quantities at a favorable price.

The accompanying chart showing materials used in oleomargarine illustrates the extensive substitution that

MATERIALS USED IN THE MANUFACTURE OF OLEOMARGARINE, 1919, AND 1926 TO DATE



U. S. DEPARTMENT OF AGRICULTURE

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may take place among the oils entering into a manufactured article.

There has been much variation in the constituent elements entering into the increasing consumption of fats and oils during the last 25 years. In 1921 the per capita disappearance of butter and oleomargarine, lard and compounds totaled about 36.5 pounds. In 1929 it was 44.5 pounds. Through the depression years it dropped back to 41 pounds and has not yet regained the 1929 peak.

THE low point in production of fats and oils since 1922 was in 1935, when the output from domestic materials was about 2 billion pounds less than the all-time high record production of more than 8 billion pounds in 1929. The decrease was due largely to reduced production of cottonseed oil, linseed oil, and lard. Total production in 1936 was more than three-quarters of a billion pounds over 1935, and crop reports indicate that vegetable oil production from the crops of 1937 may greatly exceed 1936.

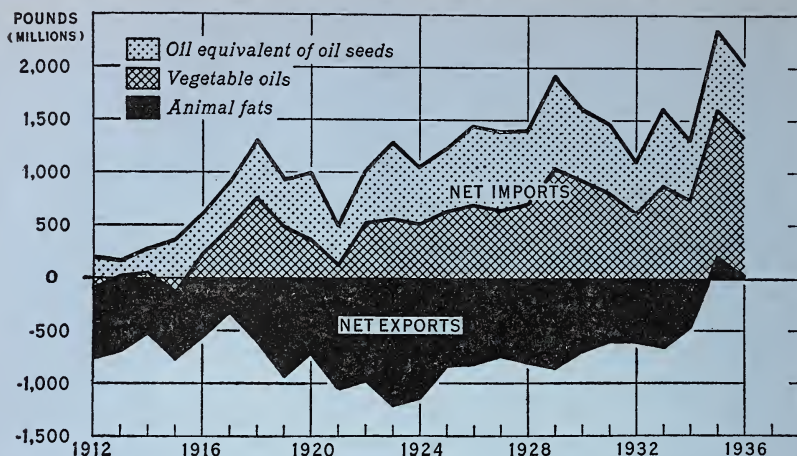
Production of fats and oils from domestic materials expressed as a percentage of total apparent disappearance ranged from 90 to 110 percent during the years 1912 to 1933,

with no definite trend. In 1934 production from domestic materials amounted to only 85 percent of total consumption; in 1935 production dropped to 70 percent; in 1936 production represented 77 percent of total disappearance. Prospective large supplies of vegetable oils from the 1937 crop are expected more than to balance the probable decreased production of animal fats.

The smaller production in 1934 and 1935 reduced the burdensome stocks that had piled up in 1933, and caused some significant shifts in import and export balances. This situation is shown graphically in the following chart.

PRIOR to the World War, the United States was on an export basis as to fats and oils, net exports averaging more than 400 million pounds in the years 1912-15. Only twice since 1916—in 1921 and 1924—have total exports exceeded total imports; but during the years of total net imports, exports of animal fats have ranged from 1,200 million pounds in 1923 down to 456 million pounds in 1934, while imports of vegetable oils plus oil equivalent of raw materials have ranged from 157 million pounds

NET TRADE IN ANIMAL FATS, VEGETABLE OILS, AND OIL EQUIVALENT OF OIL SEEDS, 1912 TO DATE



U. S. DEPARTMENT OF AGRICULTURE

NEG. 32766

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in 1913 to 2,157 million pounds in 1935.

In 1935 imports of animal oils exceeded exports for the first time in history; in the same year total net imports of fats and oils and oil equivalent of raw materials were more than 2 billion pounds, or more than double

the net imports of any previous year.

If and when lard production again equals the average production of 1923 to 1933, or 2.4 billion pounds, the surplus must be exported or domestic consumption of lard increased at the expense of vegetable oils.

ANNE DEWEES.

Dairy Products Consumption

FLUID milk and cream and ice cream were the only important dairy products the consumption of which declined during the depression of the 1930's. The Bureau of Agricultural Economics estimates that the consumption of fluid milk and cream in cities and villages declined 8 percent from 1930 to 1934. Since 1934, however, the trend has been upward and it has been estimated that consumption in 1936 was nearly as high as in 1929.

At the three principal eastern fluid milk markets, receipts of milk—good indicators of consumption in these markets—declined 11 percent from 1930 to 1934; but receipts have increased in the last 3 years and are back to about the predepression level. The percentage decline in cream receipts at these markets was about twice as much as the decline in milk

receipts, reaching a low in 1935 of 21 percent less than in 1930. There has been some recovery in cream consumption, but consumption is still decidedly below the predepression level.

Consumption of ice cream showed the most drastic decline, and the most rapid recovery during the period under review. From 1929 to 1933 commercial production of ice cream declined 43 percent. In 1936, however, production was only 6 percent below the 1929 peak and trade reports indicate that production in 1937 is between 5 and 10 percent more than in 1936.

In each year of the depression the consumption of butter, cheese, and evaporated milk was higher than the 1925-29 average. In each year since 1930 the total consumption of all manufactured dairy products combined, on a milk equivalent basis (including

ice cream), was higher than in 1929 or any preceding year. Changes in pay rolls and consumer incomes may cause some shift from the use of one dairy product to another, but they have practically no effect on total consumption of all dairy products.

Since 1900 there were only 7 years in which domestic consumption of manufactured dairy products differed from production by more than 2 percent. The year to year changes in consumption are due primarily to changes in production.

The per capita consumption of manufactured dairy products in the United States rose from 305 pounds (milk equivalent) in the decade of the 70's to 421 pounds in the 90's and

to 468 pounds in the past 10 years (1927-36). Per capita consumption of butter rose rapidly from 1869 to 1897, but in the last 45 years has shown no consistent tendency to increase or decrease. The increase in per capita consumption of manufactured dairy products since the 90's has been due to the general upward trend in per capita consumption of cheese and the marked rise in consumption of concentrated milks and ice cream. In the past decade butter has made up about 79 percent of the total consumption of manufactured dairy products (milk equivalent) compared with 91 percent in the 30-year period 1870-99.

E. E. VIAL.

Turkey Consumption Increased

THERE was a marked increase this year in consumption of turkeys. Despite the production—in 1936—of the largest crop on record, the storage stocks of turkeys have been reduced almost to normal size. The September out-of-storage movement of some 5 million pounds of turkeys was the largest on record for that month.

The 1937 production of turkeys has been estimated at 10 percent less than last year's crop. The supplies of competitive meats—other classes of poultry, beef, lamb, and pork—also are smaller. Equally important from the standpoint of net returns to turkey producers, the bountiful grain crops this year have lowered end-of-the-season turkey feeding costs.

Until recent years the production of turkeys had been a minor part of the regular farm enterprise. But as turkeys were increasingly produced to add to the general farm income, the industry began to expand, slowly at first, then with increasing rapidity. Turkey production is now frequently referred to as a \$50,000,000 industry.

From 1920 to 1930 there was a slow recovery in turkey production as growers learned how to raise turkeys in confinement, and commercial hatcheries began successfully to experiment

with the hatching of turkey eggs by artificial methods.

The first really large crop of turkeys was in 1929, when the number raised was reported by the Census Bureau at 16,794,000 birds. The turkey industry grew annually thereafter, reaching a peak of production of more than 20,000,000 birds in 1936.

When turkey production was less than 16,000,000 birds, growers had little difficulty in selling turkeys at a fair price. But when the crop began to increase substantially over 16,000,000 turkeys, it became apparent that consumer demand must be increased. Production problems have been more or less solved, but much remains to be done to improve marketing methods.

In a report by a Special Committee on the Turkey Industry, recently issued by the Bureau of Agricultural Economics, it was suggested that consumption may be increased by making fresh-killed turkeys available throughout the year, by the production of small-type turkeys, the marketing of dressed half turkeys and parts of turkeys, the manufacture of canned turkey products, by further improvement through grading, and by more extensive and timely advertising.

B. H. BENNETT.

General Trend of Prices and Wages

[1910-14=100]

Year and month	Whole-sale prices of all commodities ¹	Industrial wages ²	Prices paid by farmers for commodities used in ³ —			Farm wages	Taxes ⁴
			Living	Production	Living and production		
1920.....	225	222	222	174	201	239	209
1921.....	142	203	161	141	152	150	223
1922.....	141	197	156	139	149	146	224
1923.....	147	214	160	141	152	166	228
1924.....	143	218	159	143	152	166	228
1925.....	151	223	164	147	157	168	232
1926.....	146	229	162	146	155	171	232
1927.....	139	231	159	145	153	170	238
1928.....	141	232	160	148	155	169	239
1929.....	139	236	158	147	153	170	241
1930.....	126	126	148	140	145	152	238
1931.....	107	207	126	122	124	116	217
1932.....	95	178	108	107	107	86	188
1933.....	96	171	109	108	109	80	161
1934.....	109	182	122	125	123	90	153
1935.....	117	191	124	126	125	98	⁵ 154
1936.....	118	199	122	126	124	107	-----
October.....	119	202	-----	-----	127	110	-----
November.....	120	201	-----	-----	127	-----	-----
December.....	123	211	124	133	128	-----	-----
1937.....	-----	-----	-----	-----	-----	-----	-----
January.....	125	209	-----	-----	130	103	-----
February.....	126	211	-----	-----	132	-----	-----
March.....	128	218	127	139	132	-----	-----
April.....	128	219	-----	-----	134	112	-----
May.....	128	219	-----	-----	134	-----	-----
June.....	127	220	129	141	134	-----	-----
July.....	128	218	-----	-----	133	123	-----
August.....	128	220	-----	-----	132	-----	-----
September.....	128	215	129	132	130	126	-----

Year and month	Index numbers of farm prices [August 1909-July 1914=100]								Ratio of prices received to prices paid
	Grains	Cotton and cottonseed	Fruits	Truck crops	Meat animals	Dairy products	Chickens and eggs	All groups	
1920.....	232	248	191	-----	174	198	223	211	105
1921.....	112	101	157	-----	109	156	162	125	82
1922.....	106	156	174	-----	114	143	141	132	89
1923.....	113	216	137	-----	107	159	146	142	93
1924.....	129	212	125	150	110	149	149	143	94
1925.....	157	177	172	153	140	153	163	156	99
1926.....	131	122	138	143	147	152	159	145	94
1927.....	128	128	144	121	140	155	144	139	91
1928.....	130	152	176	159	151	158	153	149	96
1929.....	120	144	141	149	156	157	162	146	95
1930.....	100	102	162	140	133	137	129	126	87
1931.....	63	63	98	117	92	108	100	87	70
1932.....	44	47	82	102	63	83	82	65	61
1933.....	62	64	74	105	60	82	75	70	64
1934.....	93	99	100	104	68	95	89	90	73
1935.....	103	101	91	127	118	108	117	108	86
1936.....	108	100	100	113	121	119	115	114	92
1937.....	-----	-----	-----	-----	-----	-----	-----	-----	-----
November.....	127	103	97	104	118	126	141	120	94
December.....	134	105	93	99	122	127	133	126	98
1937.....	-----	-----	-----	-----	-----	-----	-----	-----	-----
January.....	143	107	105	115	128	128	110	131	101
February.....	146	108	127	143	126	126	101	127	96
March.....	145	116	133	131	129	125	102	128	97
April.....	154	117	142	127	130	120	104	130	97
May.....	149	112	152	139	133	116	96	128	96
June.....	139	107	157	124	137	113	95	124	⁵ 93
July.....	139	106	145	96	144	116	102	125	⁵ 94
August.....	119	90	123	104	151	119	109	123	⁵ 93
September.....	111	74	121	117	144	123	119	118	⁵ 91
October.....	93	67	99	130	136	128	127	112	⁵ 88

¹ Bureau of Labor Statistics Index with 1926=100, divided by its 1910-14 average of 68.5.

² Average weekly earnings, New York State factories. June 1914=100.

³ These indexes are based on retail prices paid by farmers for commodities used in living and production reported quarterly for March, June, September, and December. The indexes for other months are interpolations between the successive quarterly indexes.

⁴ Index of farm real estate taxes, per acre, 1913=100.

⁵ Preliminary.